

USGS-NPS Vegetation Mapping Program
Acadia National Park

***Pinus banksiana* / *Kalmia angustifolia* - *Vaccinium* spp. Woodland**

COMMON NAME	Jack Pine / Sheep Laurel - Blueberry species Woodland
SYNONYM	Jack Pine Heath Barren
PHYSIOGNOMIC CLASS	Woodland (II)
PHYSIOGNOMIC SUBCLASS	Evergreen woodland (II.A)
PHYSIOGNOMIC GROUP	Temperate or subpolar needle-leaved evergreen woodland (II.A.4)
PHYSIOGNOMIC SUBGROUP	Natural/Semi-natural (II.A.4.N)
FORMATION	Rounded-crowned temperate or subpolar needle-leaved evergreen woodland (II.A.4.N.a)
ALLIANCE	PINUS (BANKSIANA, RESINOSA) WOODLAND ALLIANCE

CLASSIFICATION CONFIDENCE LEVEL 2

USFWS WETLAND SYSTEM Terrestrial

RANGE

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This association occurs mostly very near the coast (Schoodic Peninsula); the area near the top of Cadillac Mountain being the farthest from the ocean.

Globally

This association occurs in Maine and New Hampshire.

ENVIRONMENTAL DESCRIPTION

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Jack pine woodlands are almost always on bedrock, with thin and very well drained soils of around pH 5.0. Peaty pockets may develop locally; mineral soil tends to be gravelly. They are typically on moderate slopes (5 - 15%) and at low to mid elevations (up to 300 m or so). Areas sampled were all either within the 1947 fire area or showed evidence of fire.

Globally

The jack pine woodland community of northern New England and the Canadian maritime provinces occurs on dry rocky summits, ridges, outcrops and lakeshores. Soils are shallow, well-drained, dry, acidic, coarse sands. Soil development is typically restricted to crevices or shelter areas interspersed with significant amounts of exposed bedrock. Elevations of known examples range from 1000-4000 feet.

MOST ABUNDANT SPECIES

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<u>Stratum</u>	<u>Species</u>
Tree Canopy	<i>Pinus banksiana</i> (<i>Picea mariana</i> , <i>Picea rubens</i>)
Short Shrub	<i>Nemopanthus mucronata</i>
Dwarf Shrub	<i>Gaylussacia baccata</i> , <i>Kalmia angustifolia</i> , <i>Vaccinium angustifolia</i> , <i>Photinia melanocarpa</i> , <i>Nemopanthus mucronata</i> , <i>Empetrum nigrum</i> , <i>Rhododendron canadense</i> , <i>Vaccinium vitis-idaea</i>
Herbaceous	<i>Sibbaldiopsis tridentata</i> , <i>Cornus canadensis</i> , <i>Maianthemum canadense</i> , <i>Trientalis borealis</i> , <i>Deschampsia flexuosa</i>
Non-vascular	<i>Cladina</i> spp.

Globally

<u>Stratum</u>	<u>Species</u>
Tree Canopy	<i>Pinus banksiana</i>
Dwarf Shrub	<i>Vaccinium angustifolium</i> , <i>V. myrtilloides</i> , <i>Gaylussacia baccata</i> , <i>Kalmia angustifolia</i> , <i>Chamaedaphne calyculata</i>
Herbaceous	<i>Deschampsia flexuosa</i> , <i>Danthonia spicata</i> , <i>Carex pensylvanica</i> , <i>Carex lucorum</i> , <i>Oryzopsis pungens</i> , <i>Cornus canadensis</i> , <i>Trientalis borealis</i> , <i>Maianthemum canadense</i>

CHARACTERISTIC SPECIES

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Pinus banksiana, upland

Globally

VEGETATION DESCRIPTION

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Open woodlands (usually < 40% canopy) of short *Pinus banksiana* (canopy height usually 5 m or less, trees short and wide) and a well developed heath shrub layer. Prominent heaths are *Gaylussacia baccata*, *Kalmia angustifolia*, and *Vaccinium angustifolium*; *Rhododendron canadense*, *Empetrum nigrum*, and *Vaccinium vitis-idaea* may be locally important. *Photinia melanocarpa* and *Nemopanthus mucronata* are characteristic deciduous shrubs. Herbs are sparse; frequent species include

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Sibbaldiopsis tridentata, *Cornus canadensis*, and the ubiquitous *Maianthemum canadense* and *Trientalis borealis*. Unlike some other woodlands, all samples were strongly dominated by *Cladina* lichens in the bryoid layer, and mosses were unimportant.

The basal area ranged from 3 - 5 (20) m²/ha. Canopy heights were 3 - 5 m (avg. 4 m).

Globally

The scattered open canopy of *Pinus banksiana* may also occur with *Picea rubens*, *Betula papyrifera* var. *papyrifera*, *Betula papyrifera* var. *cordifolia*, and *Abies balsamea*. A sparse tall-shrub layer may include *Sorbus americana*, *Viburnum nudum* var. *cassinoides*, *Nemopanthus mucronatus*, *Aronia melanocarpa*, or *Amelanchier* spp. The low heath layer is well developed and is comprised of *Vaccinium angustifolium*, *Vaccinium myrtilloides*, *Gaylussacia baccata*, *Kalmia angustifolia*, *Chamaedaphne calyculata*. Forbs and graminoids include *Deschampsia flexuosa*, *Danthonia spicata*, *Carex pensylvanica*, *Carex lucorum*, *Oryzopsis pungens*, *Sibbaldiopsis tridentata*, *Cornus canadensis*, *Trientalis borealis*, *Solidago simplex* var. *randii*, and *Maianthemum canadense*. Near the coast, *Empetrum nigrum* and *Vaccinium vitis-idaea* are common associates. The bryophyte layer is dominated by lichens such as *Cladonia alpestris*, *Cladonia rangiferina*, *Rhizocarpon geographicum*, and *Umbilicaria* spp. Mosses include *Pleurozium schreberi*, *Polytrichum juniperinum*, and *Polytrichum piliferum*. Ground cover is sparse needle litter and exposed bedrock.

OTHER NOTEWORTHY SPECIES

CONSERVATION RANK G3G5.

DATABASE CODE CEGL006041

COMMENTS

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Black spruce upland woodlands and some pitch pine woodlands are very similar compositionally.

Globally